(7/27/97)

Brookhaven National Laboratory

Management Systems Improvement Program (MSIP)

PROGRAM DESCRIPTION

Introduction/Background

The Department of Energy (DOE) Office of Environmental Safety and Health (EH) conducted an Integrated Safety Management Evaluation (ISME) of Brookhaven National Laboratory (BNL) from February through April 1997 and issued their report in April 1997. The report found that "significant management attention" is needed to remove barriers that are impeding improvements in environmental, safety, and health (ES&H) programs and performance at the Laboratory.

In March 1997, the Director of BNL appointed a Committee to review the Laboratory's ES&H decision-making process and make recommendations for the improvement of the Lab's ES&H programs. This Committee was headed by the Chair of the Department of Advanced Technology (DAT) and included a member of the Suffolk County Department of Health Services (SCDHS).

Foremost among Associated Universities Inc. (AUI) and BNL's responses to these reports were management changes, announced on April 28, 1997. AUI appointed an Interim Director, an Interim Deputy Director for programs, and created a new position at BNL, a Deputy Director for operations, with emphasis on ES&H programs and performance. This interim management team, with the assistance of a consultant, P. Rice, developed a holistic approach to implementation of the changes that would be needed to correct the deficiencies in the Laboratory's management systems. The approach, called the BNL Management Systems Improvement Program (MSIP), was first presented to DOE, in Washington, on May 13, 1997.

MSIP Goals

The goals of the MSIP are to:

1. Consolidate all actions needed to respond to the DOE ISME Report, the ES&H Decision-Making Process Committee Report, as well as other recognized opportunities for improvement, into a single program, which can be managed at a high level.
2. Ensure that all activities are appropriately scheduled and required resources identified and allocated, so that all actions are carried through to completion.
3. Develop a framework for partnering with DOE on improvements to BNL ES&H programs.
4. Improve Laboratory Leadership and management systems.
5. Regain the trust and confidence of the Long Island Community.
6. Supplement existing BNL ES&H programs and create new programs as required to implement Integrated Safety Management (ISM) at BNL.
7. Achieve "best in class" performance in ES&H at BNL.

Organization

The MSIP is organized into three initiatives: Leadership, Communications, and Integrated Safety Management Systems. These initiatives were developed through a process of summarizing the individual findings of the ISME and DAT reports and grouping each of them into categories. Additional actions, recognized as needed by BNL senior leadership, were then added and the categories evolved into the three initiatives.

The traditional project management approach is used to structure the MSIP. A work breakdown structure (WBS) defines the scope of the program and a WBS Dictionary explains all elements in detail. A team of senior managers is assigned to each Initiative and a BNL staff member to each lower level element. The WBS-based schedule is developed for each WBS element down to Level IV and resource-loaded to ensure feasibility within the resources available to the Laboratory. These individual Level IV element schedules are then rolled-up to form the overall, (or Level I) MSIP schedule.

The MSIP envisions an ongoing partnership between BNL and DOE. As a result, a process of formal approval by BNL and DOE senior leadership is a part of the MSIP approach, as is a formal baseline change control process. The MSIP is also a part of the Office of Energy Research (ER) "DOE Action Plan for Improved Management of Brookhaven National Laboratory" and will be fully integrated with the other initiatives contained within that Plan to improve ER's stewardship of BNL as well as the other ER national laboratories.

The Leadership Initiative

The Leadership Initiative includes high-level leadership actions needed to revitalize the management of the Laboratory. Included is a sub-initiative on Performance-Based Management which will develop core values, update the mission and vision statements and core competencies of the Laboratory, and improve the strategic planning process. The current performance measures used by DOE and BNL will be revisited so as to improve their overall relevance to the mission and to focus more sharply on ES&H performance. The Laboratory's employee evaluation/reward mechanisms will be studied, and a new program for development of the Laboratory's future managers and leaders will be implemented.

The organization of the Laboratory, as well as external resources important to the Laboratory's success, are also a key part of the Leadership Initiative. Included are formation of a new Directorate structure, a Leadership Council, and an ES&H Management Advisory Group. The latter group will include federal, state, and local regulators in the near term and community members in the long term.

New operational concepts will be studied and roles and responsibilities among all levels of senior management will be clarified and documented. The system of standing and ad hoc Committees in the ES&H area will be examined. A system of Peer Review for support organizations will be developed to bring "best commercial practices" to all non-scientific processes at the Laboratory. This system will parallel the highly successful AUI Visiting Committee system for program reviews.

The DOE/EH Mentoring Program will be a valuable asset to BNL's efforts to achieve ES&H excellence, and the Leadership Initiative includes the high level planning and support for this program.

The Leadership Initiative also encompasses the planning and development of the MSIP structure.

Communications Initiative

The focus of this Initiative is to regain the trust and support of the Long Island Community. The communications infrastructure at BNL will be significantly strengthened through the actions listed in the Initiative. Communications planning is the first focus, with the development of near term plans for FY97/98 communications activities as well as for HFBR Restart. Short-term plans for public affairs/community relations staff development and an update of the Laboratory's Crisis Communications Plan are also included.

New, recurring planning processes will be put in place to include an annual Communications Plan and a Strategic Plan which will develop actions needed to support the initiatives in the Laboratory's Institutional Plan.

A Communications Management System will be developed which will consolidate current policies and procedures and make additions and revisions as necessary. In addition to communications-specific processes, performance-based management and personnel management systems will also be developed.

A full spectrum of informational databases will be created to provide a resource for Public Affairs/Community Relations staff, as well as Laboratory management. These databases will facilitate rapid dissemination of news about BNL activities, provide an opportunity for feedback, and ensure the most effective avenues of communication are used with each stakeholder.

Resource materials, available for all Laboratory and DOE communicators, will be prepared in the form of a questions and answers database, and a key issues, programs, and projects database. The training needs of all communicators will be addressed through a program of courses to be developed under this Initiative.

Integrated Safety Management Systems Initiative

All actions needed to fully implement Integrated Safety Management (ISM) will be accomplished under this initiative. The three-tier Self Assessment process used at the Laboratory will be an early focus of the MSIP. With the assistance of DOE/EH mentors, this program will be expanded and focussed at the employee level to enhance the process of individual ownership of safety while continuing to ensure that Laboratory management is providing a safe work-place. Key interfaces between the self-assessment process and information management systems, the commitments and corrective action tracking system, and planning and budgeting processes will be developed and upgraded.

The Commitment and Corrective Action Tracking System (CCATS) which has been in the pilot stage at BNL will be fully implemented. Data requirements, access requirements, roles and responsibilities for system use and maintenance, and interfaces to other BNL management systems will be developed and put in place.

BNL's Priority Assessment System will be redesigned. Prioritization methods at other DOE and private sector facilities will be benchmarked. The ES&H Management Advisory Group will be brought into the process and a new process description and procedures set will be developed. The process used by BNL for internal budgeting of ES&H needs will also be substantially revised. This activity will be highly integrated with DOE activities to reform the Office of Energy Research processes for infrastructure and ES&H stewardship.

Work Planning is recognized as a pivotal activity in ensuring worker safety and health as well as protection of the environment. Under this initiative, the Laboratory will map its current programs that use the five core functions of work planning and identify missing elements, or "gaps". Specific actions will be developed to assure incorporation of these core functions into the planning and execution of all work activities at the Laboratory, both research and routine work.

Improvement of the Laboratory's training program will be a key part of this Initiative. The site-wide training database will be brought on line and the current status of the training program will be documented. User training will be reviewed and improved, and new training needs identified and met. The Laboratory's organizational structure for training will be revisited and roles and responsibilities for training will be revised as needed. There will be a special focus on the quality, and effectiveness of training.

An ES&H Standards and Requirements set appropriate for the work performed at the Laboratory will be developed. A process similar to that used at Lawrence Berkeley National Laboratory or the Thomas Jefferson Laboratory will be employed.

Integration of key ES&H management information systems will be another major effort under this initiative. Activities will include an identification of existing systems, a review of gaps in those systems and improvements to better integrate the data and to make it accessible to those who can directly affect it, as well as to Laboratory management at all levels. Roles and responsibilities for support of the systems will be developed.

The Laboratory's Environmental Management System will be reviewed and improved. The Environmental Protection Agency (EPA) will play a key role as will senior Laboratory management. Actions to respond to findings from the EPA Multimedia inspection are included here, as are the Phase II and III audits by EPA.

Summary

The Brookhaven National Laboratory Management Systems Improvement Program (MSIP) represents a major revitalization of the management of the Laboratory at all levels and underscores a commitment on the part of BNL leadership to achieve a permanent change in the culture of the Laboratory. The accomplishment of the work outlined under this program will create a comprehensive ES&H infrastructure which will fully meet all stakeholder expectations and achieve world class ES&H performance at Brookhaven.